AUTODOC CLUB

How to change brake discs on a car – replacement tutorial

VIDEO TUTORIAL



WHAT YOU MIGHT NEED TO REPLACE THE DISCS:



- a set of new brake discs and pads
- a set of suitable tools for removing wheels and brake system components
- a wire brush and a WD-40 type agent
- brake cleaner
- brake caliper wind back tool
- respirator, gloves, goggles

BUY TOOLS

Reasons for replacing brake discs:

- normal wear
- reduced braking efficiency
- shuddering when braking
- excessive corrosion

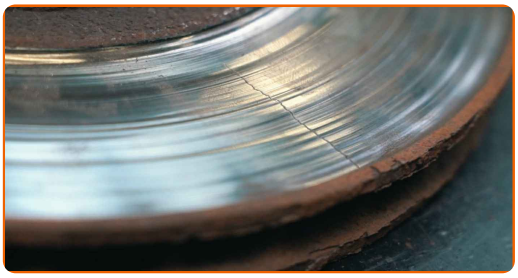
1 Due to the constant impact of the pads, the disc becomes thinner over time



2 The acceptable wear limit is 2–4 mm



3 Worn discs may crack due to overheating



4 Uneven wear is caused by poor quality brake pads or dirt getting between the pads and the disc



5 Discs can also be damaged from the inside due to corrosion



6 Overheating may cause the disc to warp



7 A corroded wheel hub prevents the disc from contacting the hub surface evenly



8 This causes shuddering

Important!

- Brake discs should only be changed in pairs on each axle

9 Raise the car



Please note!

- When using a jack you also need to use jack stands

10 Raise the whole axle of the car



11 or perform the repair job first on one side of the axle, and then on the other

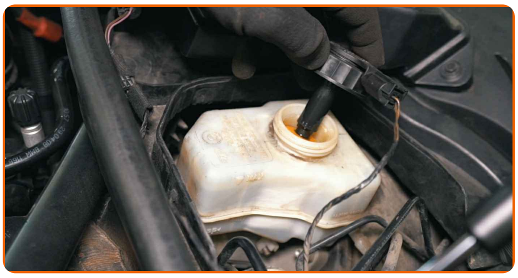
12 Be sure to use wheel chocks



Please note!

- The procedure for replacing brake discs is almost identical on most vehicles

13 Check the level and condition of the brake fluid in the reservoir



14 Leave the reservoir open and make sure that no dirt can get inside it



Caution!

- When you're winding back the brake caliper pistons, brake fluid may overflow

15 Before starting the replacement, look at the design of the brake caliper and the way it is fastened



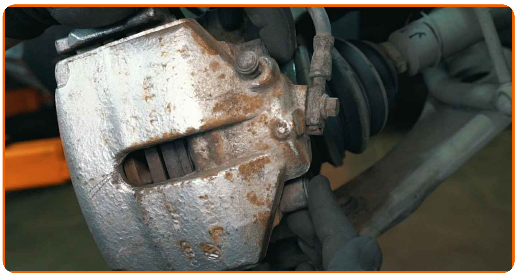
AUTODOC recommends:

- Please note that products from different manufacturers can vary in design

16 Remove the caliper to access the brake disc



17 When doing this, you might need to remove the retaining spring, guide pin caps and guide pins themselves, and the fasteners of the brake caliper bracket



18 If the caliper is difficult to remove, use a suitable tool to force it apart or to pry it off



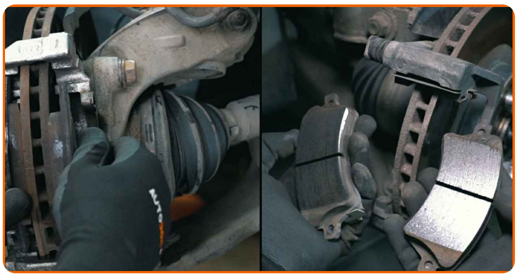
19 Hang the brake caliper from the suspension or the car body



Important!

- Do not hang the caliper from the brake hose to avoid damaging the hose

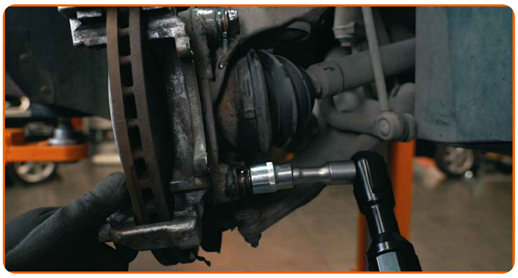
20 Remove the brake pads



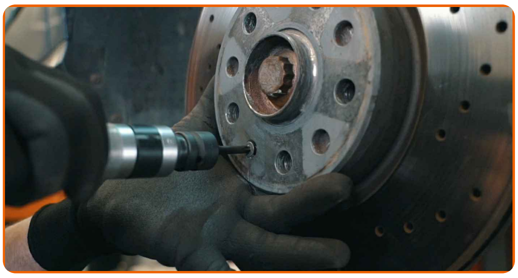
21 If the brake caliper has a bracket, remove it



22 Clean and unscrew the bracket fasteners



23 Clean and remove the fasteners that connect the brake disc to the wheel hub



Please note!

- On some cars, the brake discs have no fasteners and are pressed against the wheel hub by the wheel rims

24 In this is the case, screw in at least one wheel fastener before removing the bracket to prevent the brake disc from falling

25 Remove the brake disc



26 On many cars, the brake discs have an integrated wheel bearing



27 This means that to remove the disc, it's necessary, among other things, to unscrew the fastener of the bearing

28 You can buy brake discs with integrated bearings and install them as they are

29 Alternatively, you'll need to perform an additional job pressing new bearings into your new brake discs



30 If the brake disc fasteners are difficult to remove, use an impact screwdriver



Please note!

- The brake disc might be stuck to the hub, making it difficult to remove

31 If necessary, use a rubber mallet to hit the back of the disc lightly



Caution!

- Hold the brake disc firmly

32 After a few taps with the mallet, turn the brake disc together with the hub and repeat the steps



33 Tap the area where the brake disc contacts the hub with a hammer



34 Hit it gently, just enough to create vibration without damaging the bearing



35 Clean the surface of the wheel hub



36 Treat the surface with an anti-corrosion agent



37 Read the brake disc manufacturer's instructions



Please note:

- You may need to clean the factory-applied protective grease from the discs first
- Brake discs that are ready for installation are usually marked "Ready to use"

38 Install a new brake disc



39 Install and tighten the fasteners with a torque wrench to the manufacturer's recommended torque



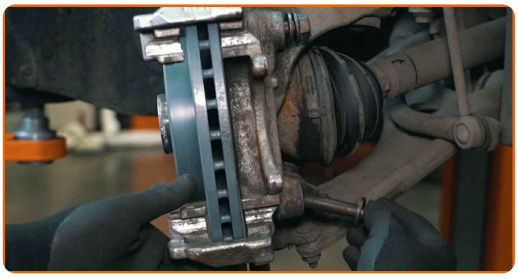
40 Clean the brake caliper bracket



Important!

- The surfaces the brake pads are supposed to move along should be smooth and free from defects

41 Install the brake caliper bracket



42 Tighten the fasteners with a torque wrench to the manufacturer's recommended torque



43 Check the condition of the brake hose and the brake caliper guide pins and piston boot



44 The guide pins should move freely within their seats



45 The caliper piston boot should not be damaged



46 If any defects are found, use a brake caliper repair kit or replace the whole caliper



47 Use a nylon brush to clean rubber elements



48 Wind back the brake caliper pistons. Use a special brake caliper piston wind-back tool



Important!

- If your rear brake calipers are equipped with an integrated parking brake, you may need to rotate the pistons while winding them back

49 Treat the surfaces where the brake pads contact the caliper and bracket with anti-squeal paste



AUTODOC recommends:

- Do not apply too much anti-squeal paste to prevent it from getting on the friction surface

50 Install the brake pads



51 Install the brake caliper



52 Make sure all the parts are in the correct position



53 Tighten the fasteners to the torque recommended by the manufacturer



54 Install all additional fasteners



55 Treat the surface of the new brake disc where it will contact the wheel rim with an anti-corrosion agent



56 Clean the mating surface on the wheel rim and the working surface of the brake disc



57 Screw in and tighten the wheel fasteners in a criss-cross pattern. This will ensure uniform fit of the wheel to the hub



58 Press the brake pedal fully several times until you feel resistance

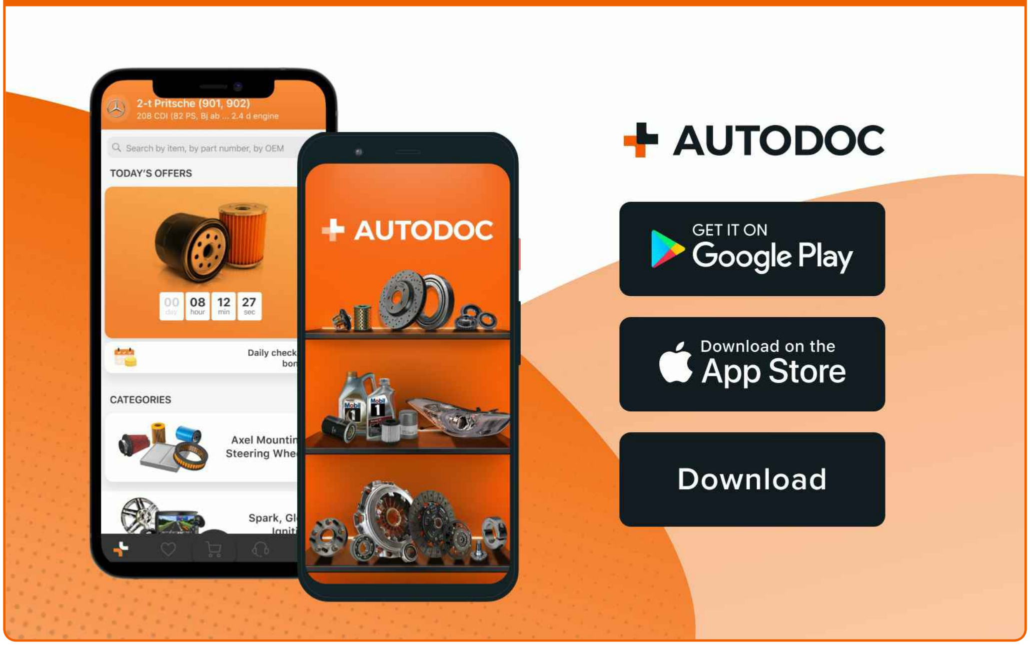


59 Check the brake fluid level in the expansion tank and refill if necessary



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BRAKE DISCS: A WIDE SELECTION

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